



PROJECT PROGRESS REPORT

**PREPARED FOR THE ALASKA ENERGY AUTHORITY BY
THE ALASKA CENTER FOR ENERGY AND POWER**

PROJECT TITLE: *Rounds 1 & 2: Emerging Energy Technology Fund – Data*

REPORTING PERIOD: 3rd Quarter 2018

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EETF Round 1 Projects

Ongoing Projects:

Project #037- Oceana, Hydrokinetics, Project #043 – Ocean Renewable Power Corporation (ORPC), Hydrokinetics, Project #058 – Boschma Research Inc. (BRI), Hydrokinetics

These projects have reached completion, with the exception of ongoing work with Oceana in the ACEP Power Systems Integration Laboratory. ACEP will complete its final report after all work with Oceana is finished.

Final Reports in Progress:

Project #003 – Alaska Division of Forestry, Biomass Reforestation (draft submitted to AEA last quarter)

Northwest Arctic Borough, Arctic Field Testing and Power Curve Verification of Eocycle 25 kW Wind Turbine (draft submitted to AEA last quarter)

Project #009 – Genesis – Ultra-Efficient Generators and Diesel-Electric Propulsion

Project #026 – Cold Climate Housing Research Center (CCHRC), Ground Source Heat Pump (GSHP)

Project #028 – University of Alaska Fairbanks (UAF), Organic Rankine Cycle (ORC)

Project #035 – Altaeros, Airborne Wind Turbine

Completed Projects and Reports:

Project #006 – Arctic Sun, Arctic Thermal Shutters and Doors

Project #029 – University of Alaska Fairbanks, Exhaust Thimble

Project #045 – Hatch, Flywheel

Project #049 – Intelligent Energy Systems (IES), Self-Regulated Grid

Project #051 – Intelligent Energy Systems (IES), Wind-Diesel-Battery Hybrid System

Project #061 – Marsh Creek, Various Speed Diesel-Electric Generation

EETF Round 2 Projects

Ongoing Projects:

Multi-Stage Energy Storage System, Chugach Electric Association

ACEP has completed data collection from Chugach Electric. Analysis is ongoing, with the period of performance for Chugach noted to be through December of 2018.

Completed Projects:

Air Source Heat Pumps, CCHRC

Trans-Critical CO₂ Heat Pump, Alaska Sea Life Center

St. Paul Flywheel Demonstration, TDX